ABSTRACT

The pressure vessel of the present invention comprises an inner shell capable of serving as a gas barrier and a pressure resistant outer shell provided to cover the inner shell, said outer shell being made of an FRP comprising reinforcing fibers and a resin and is 35 GPa or more in tensile modulus and 1.5% or more in tensile breaking strain. The present invention can provide a pressure vessel not only light in weight, but also excellent in retaining its internal pressure against repetitive impacts and also excellent in reliability.

The process for producing a pressure vessel of the present invention comprises the step of forming a pressure resistant outer shell made of an FRP comprising reinforcing fibers and a resin and is 35 GPa or more in tensile modulus and 1.5% or more in tensile breaking strain, around an inner shell capable of serving as a gas barrier, by a filament winding method or a tape winding method. The present invention can produce a pressure vessel excellent in retaining its internal pressure, excellent in reliability, and light in weight at a low cost.